

CLAIMS

What is claimed is:

1. A method for allocating bandwidth in a broadband wireless communication system, wherein the wireless communication system includes a plurality of customer premise equipment (CPE) in communication with associated and corresponding base stations, and wherein the base stations maintain uplink and downlink sub-frame maps representative of the bandwidth allocations in the uplink and downlink communication paths, the method comprising the steps of:
 - (a) obtaining a packet;
 - (b) determining whether the packet of step (a) is a padding packet;
 - (c) if the packet is a padding packet, alerting a base station CPU of the padding packet and an associated CPE, else returning to step (a);
 - (d) reducing a bandwidth allocation of the associated CPE; and
 - (e) returning to step (a).
2. The method for allocating bandwidth of Claim 1 wherein the alerting a base station CPU step (c) comprises transmitting a flag packet to a base station CPU.
3. The method for allocating bandwidth of Claim 2 wherein the flag packet comprises information regarding an associated CPU.
4. The method for allocating bandwidth of Claim 1 wherein the alerting a base station CPU step (c) comprises a shared memory processor.
5. The method for allocating bandwidth of Claim 1 wherein the steps (a)-(c) are performed by a base station modem and the step (d) is performed by a base station CPU.
6. The method for allocating bandwidth of Claim 1 wherein the step (a) is performed by a base station modem and the steps (b)-(d) are performed by a base station CPU.

7. The method for allocating bandwidth of Claim 1 wherein the reducing a bandwidth allocation step (d) comprises resetting all requested bandwidth for the associated CPE.

- 5 8. An apparatus for allocating bandwidth in a wireless communication system, wherein the wireless communication system includes a plurality of customer premise equipment (CPE) in communication with associated and corresponding base stations, and wherein the base stations maintain uplink and downlink sub-frame maps representative of the bandwidth allocations in the uplink and downlink communication paths, comprising:
- 10 (a) packet obtaining means for obtaining a packet;
- (b) packet determining means, coupled to the packet obtaining means, for determining whether a packet is a padding packet;
- (c) base station CPU alerting means, coupled to the packet determining means, for alerting a base station CPU of a padding packet and an associated CPE; and
- (d) bandwidth allocation reducing means, coupled to the base station CPU alerting means, for reducing a bandwidth allocation of the associated CPE.
9. The apparatus for allocating bandwidth in a wireless communication system as defined in Claim 8, wherein a base station modem comprises the packet obtaining means, the packet determining means and the base station CPU alerting means and wherein a base station CPU comprises the bandwidth allocation reducing means.
10. The apparatus for allocating bandwidth in a wireless communication system as defined in Claim 8, wherein a base station modem comprises the packet obtaining means and wherein a base station CPU comprises the packet determining means, the base station CPU alerting means and the bandwidth allocation reducing means.